CLAIMS

1. A reciprocating power tool, comprises:

a housing;

a reciprocating rod subassembly which exert a reciprocating movement in said housing, and said reciprocating rod subassembly has an end portion for receiving an operating member;

an operating member locking mechanism which is disposed on said reciprocating rod subassembly; said operating member locking mechanism includes an unlocking position, an actuating subassembly is movable relative to said reciprocating rod subassembly between a locking position and an unlocking position;

a locking subassembly which has two operating positions, a first operating position whereat said operating member is locked to said reciprocating rod subassembly; a second operating position whereat said operating member is unlocked from said reciprocating rod subassembly; said locking subassembly move between said two positions; said locking subassembly move from said locking position to said unlocking position when said actuating subassembly move from said engaged position to said disengaged position; said locking subassembly move from said unlocking position to said

locking position when said actuating subassembly move from said engaged position move to said disengaged position;

Characterized in that:

Said actuating subassembly at least includes a rotating sleeve which is rotatable about said reciprocating rod subassembly, a sliding block which is movable relative to said reciprocating rod subassembly in a axial direction, there are thread grooves opened in the inner wall of said rotating sleeve, a guiding projection is provided at the exterior of said sliding block, said guiding projection insert into said thread grooves, the interior of said sliding block is disposed with an inclined or curved guiding surface;

Said locking subassembly at least includes a pin body which is movable relative to said reciprocating rod subassembly in the radial direction, said outer end portion of the pin body is disposed with an inclined or curved guiding surface which is attached with said inclined or curved guiding surface which is provided on said sliding block.

2. A reciprocating power tool of claim 1, wherein said outer end portion of said pin body is respectively connected with two ends of a second torsion spring

which give said pin body a tendency moving from a locking position to an unlocking position.

3. A reciprocating power tool of claim 1, wherein said reciprocating rod subassembly outside ring a first torsion spring, an end portion of said first torsion spring is connected to said reciprocating rod subassembly and the other end portion of said first torsion spring is connected to said rotating sleeve.

4. A reciprocating power tool of claim 1, wherein an outer surface of said rotating sleeve is provided with projecting ears.

5. A reciprocating power tool of claim 1, wherein said reciprocating rod subassembly is disposed with a slot which is opened in said axial direction and in which said sliding block inserted.

6. A reciprocating power tool of claim 1, wherein an end portion for receiving said operating member of said reciprocating rod subassembly provided a slot for containing the operating member; said reciprocating rod subassembly provided a hole in the axial direction for receiving said pin, said hole has said pin body inserted into, said inner end portion of said pin body lies in said slot when said pin body lies in its locking position.

7. A reciprocating power tool of claim 1, wherein an end portion of said reciprocating rod subassembly for receiving said operating member is disposed with a slot for containing said operating member, a pushing plate which is movable in the axial direction is accommodated in said slot, said pushing plate extend into therebetween said inner end portion of pin body and side wall of said slot when said pin body lies in its locking position; an outer end portion of said pushing plate press on said inner end portion of said operating member.

8. A reciprocating power tool of claim 1, wherein a compressing spring is provided between said pushing plate and said reciprocating rod subassembly, said compressing spring give said pushing plate a tendency to move towards said operating member.